

**April 23, 2013**  
**Medway Planning and Economic Development Board**  
**155 Village Street**  
**Medway, MA 02053**

**BOARD MEMBERS PRESENT:** Andy Rodenhiser, Bob Tucker, Karyl Spiller-Walsh, Chan Rogers, Tom Gay and Associate Member Matthew Hayes.

**ABSENT WITH NOTICE:**

**ALSO PRESENT:** Susy Affleck-Childs, Planning and Economic Development Coordinator  
Amy Sutherland, Meeting Recording Secretary  
Gino Carlucci, PGC Associates  
Dave Pellegrini, Tetra Tech

The Chairman opened the meeting at 7:00 pm.

There were no citizen comments.

**ANR Plan Henry Wickett:**

The Board is in receipt of a revised ANR Plan submitted by Henry Wickett. The plan revision date is April 18, 2013. It pertains to property located east of Winthrop Street, west of Holliston, south of Fairway Lane and north of Ohlson Circle. The plan was prepared by Colonial Engineering of Medway, MA.

Consultant Carlucci from PGC Associates provided a review letter dated April 23, 2013. **(See Attached)**

The Board is also in receipt of a letter from Colonial Engineering, Inc. dated April 19, 2013 regarding the outstanding issues. **(See Attached)**

Mr. DeSimone indicated that there is a purchase and sale with Parcel B.

The only minor issue which has been resolved was that the application did not show or label the parcel which provides access to Fairway Lane. This has been corrected. Paul DeSimone indicated that this has been attached with the deeds.

Parcel A will be conveyed to the Town and Parcel B will be left with just 23.01 feet of frontage on Winthrop Street.

**On a motion made by Bob Tucker and seconded by Chan Rogers, the Board voted unanimously to endorse the revised ANR Plan for Henry Wickett as presented.**

**Applegate Subdivision Modification:**

Susy reported that the Board had received the expected application to modify the Applegate Definitive Subdivision Plan. She indicated that the applicant has asked the Board to waive the fees. The Board noted that it had previously discussed waiving fees since it was in the best interest of all involved to straighten out the drainage issues.

**On a motion made by Karyl Spiller-Walsh and seconded by Bob Tucker, the Board voted unanimously to waive the application/filing fee for the Applegate Modification.**

The Board is in receipt of a cost estimate of \$1,865 from Tetra Tech dated April 18, 2013 for plan review services related to the proposed Applegate Farm modification. **(See Attached)**

**On a motion made by Bob Tucker and seconded by Chan Rogers, the Board voted unanimously to approve the plan review estimate from Tetra Tech in the amount of \$1,865.00.**

**Hill View Estates Definitive Subdivision Plan – Public Continuation Hearing:**

The Board reopened the continued public hearing for Hill View Estates.

Tony Biocchi appeared on behalf of the applicant Christine Price. The applicant would like the ability to have her counsel speak with the Town of Medway Counsel to discuss the applicability of the prior variance on the property. Mr. Biocchi provided a check per the plan review fee invoice so that the applicant covers the cost of consulting with town counsel.

It was noted that at the previous public hearing, the Board did not release the opinion which Counsel had provided to the Board regarding the prior variance. The Board wanted the applicant's attorney to present a letter with reasons why the variance could be reconsidered.

Mr. Biocchi noted that the applicant's attorney, John Fernandes, could not attend tonight's PEDB meeting. Mr. Fernandes felt without being able to be here this evening, he did not want to be making decision without getting clarity from the Towns Counsel. Both attorneys can figure out what to do and come up with a remedy or he could be at the next meeting.

Susy asks the Board if it is comfortable releasing Town Counsel's opinion in which the rationale was provided.

Member Tucker is not convinced that we should release this document to the applicant, but felt Town Counsel could certainly discuss it with them.

The Board is comfortable with the applicant contacting our counsel.

The applicant still has some revisions to provide once the discussion with counsel takes place.

**On a motion made by Bob Tucker and seconded by Chan Rogers, the Board voted unanimously to continue the public hearing for the Hill View Estates Definitive Subdivision Plan to May 28, 2013 at 7:15 pm.**

### **Daniels Wood II Bond Estimate:**

The Board is in receipt of a memo from Tetra Tech dated April 19, 2013 regarding a bond estimate Daniels Wood II. (See Attached)

The Board has two issues to discuss. 1. Bond amount. 2. Type of performance security.

Susy reported that Mr. DeSorbo, the new owner, has suggested using financial securities for the performance security. She noted the Board has not used this before. He is proposing to pledge his retirement savings. He wants to move along quickly and has contracted with Leland Construction to build the house. The site work could be complete in 6 to 8 weeks after the building permit. The applicant would sign Form O and give the Town of Medway the right to act to pay in case of default. This would be a savings account. The applicant has an excess of \$275,000 and can make those funds available within 24 hours.

Susy communicated that the town provide written input on this along with town counsel. The treasurer noted that we should have more than 100% of the bond amount in case the value of the securities changes. It was noted that this is not an IRA account.

The UBS statement will be forwarded to counsel.

**On a motion made by Bob Tucker and seconded on Chan Rogers, the Board voted unanimously to set the bond amount in the amount of \$18,133.00 with the approval of Town Counsel relative to method of bond agreement.**

A plan review account will need to be set up. Susy will forward all documents to town counsel.

### **Consultant Carlucci's Report:**

- There will be a public hearing on Land Use Reform Bill on May 14, 2013.
- There will be a SWAP Transit Study Meeting on May 15, 2013 from 12:00 – 3:00 pm.

### **Consultant Pellegrini's Report:**

- Daniel Woods II paving went smoothly.
- Inspection services to buildings at Fox Run Farm have begun. There was one issue relative to grading.
- He is developing a cost estimate related to street acceptance work for Azalea Drive for 2014 fiscal budget.

### **Planning and Economic Development Coordinator's Report:**

- The Board of Selectmen's public hearing for street acceptance for Claybrook II will be May 6, 2013.
- The PEDB will have an informal discussion during the April 30, 2013 meeting with the prospective Cumberland Farms.
- The Board will be voting its recommendations on the proposed Zoning Bylaw amendments on April 30, 2013.

- The Chairman will forward an email he received about the proposed zoning bylaw. He will forward it to Susy to distribute to the Board.
- Member Tucker received an email from Shelly Wheeler, chairman of the Energy Committee about wanting to meet with the PEDB to discuss how to incorporate more energy saving initiatives into new development proposals.

The Board would like to set up a meeting with Energy Committee. There was discussion on how to get new green building approaches into the new subdivisions with simply the materials and conserving resources. Susy will set up a meeting with the Energy Committee to discuss this further.

- Susy communicated that she attended a webinar on solar and the Town has been selected to be part of the Solarize Mass program. This is available for private sector residents and businesses. The Town is reviewing vendor proposals to select a solar installer which will work in Medway. There is a timeline for those who tie in and the more people which participate and tie in, the better the pricing.

Resident Bob Parella noted that you need to be careful with solar panels and snow removal. This creates a problem with the weight and removal of the excess load.

### **Water Management Study:**

Department of Public Service Director, Tom Holder informed all that the Town of Medway received a grant from Massachusetts Department of Environmental Protection. This is to perform work with the water management program. This is called Sustainable Watershed Initiative. The purpose is to protect the Charles River Watershed. We are trying to keep the water local. The town is on the fast track since the funding for this expires June 30, 2013. The project is to look at how we manage water withdrawal within our four locations to meet the permit regulations under the five year program. This will also be integrated with stormwater. There will be a workshop on Thursday with the goal to outline a plan for moving forward. There will be several representatives as part of this collaborative group. The awarded grant was for \$99,000.

### **Tri-Valley Common Site Plan – Public Hearing Continuation**

The Chairman opened the continued public hearing for Tri-Valley Common.

The Chairman apologized to all for what had happened at the last meeting. As the Chairman he feels the actions at the last meeting was a departure from how the Board conducts itself. Going forward, the Board will still be able to have liberal discussions in the free form and flow, but the Chairman will make sure to have more control over the discussion and public hearing process. He will institute order and has a copy of Roberts Rules. If the Board gets off topic, he will ask for a point of order. The Chairman will decide if the discussion is warranted. The intent of the Chairman is to move forward in the public hearing process to allow for a fair decision.

The Board has received the following documentation in their board packet:

- Email from John Diaz of GPI dated April 23, 2013 regarding the comments from Mr. Scully responses to comments. **(See Attached).**
- Email from Bill Scully dated March 15, 2013 regarding the Saturday traffic counts. **(See Attached)**
- Email from Bill Scully dated April 18, 2013. **(See Attached).**
- Letter from Bill Scully relative to sizes of plant material dated April 18, 2013. **(See Attached)**
- A letter from Places Associates, Inc. dated April 22, 2013 provided from the Cassidy family. **(See Attached)**

The applicant has copies of all the documents provided to the Board.

Consultant Mike Hall from Tetra Tech informed the Board that he received the comments from Mr. Scully on Friday at noon. He has not been able to provide follow-up written comments. The Saturday count numbers have also not been provided.

Mr. Scully responded that the Saturday numbers were collected and will be ready in the next day or two. The traffic collection was done at the shopping plaza west driveway and the post office driveway was included.

The traffic key issues are signal timing, plan for Saturday analysis, and the western driveway. This is proposed to be signalized. The qualitative levels are A-F measures. This includes different movement and approaches. It measures how we use the signaling and analyzes how it is working. This analysis was done at the west drive. The Saturday traffic report will include trip generation estimates and analysis for the Saturday Peak hour. It is at a level C. The trip distribution was based on existing traffic patterns; a diagram was shown and reviewed. The signal timing at the site drive and phasing and overall basis of cycle selected is really a design issue. This is a balance of queuing and level of service. The analysis of Main Street with Holliston Street and Medway Commons is consistent with the Route 109 in terms of the cycle length and signal phasing. This means less delay on Route 109.

The Chairman wanted to know what that means to a resident traveling on this route.

Mr. Scully responds that this is done to maintain a longer stretch of green along the corridor and the delay would be less. There would be less sitting time. It is done on a time cycle of 130 seconds. The cycle would be going from green to yellow to red. The goal is to give Rt. 109 drivers the priority. This depends on the volume or movement on the main line. The balance level of service may need to be adjusted in some of the movements.

Member Tucker wanted to know if the lights would be interconnected between the first plaza at Medway Commons all the way through to the last set of lights by the Medway Community church.

Mr. Scully responded no, not to the church. This was designed for 800 ft. of road to be consistent with the Rt.109 plan. There will be a conduit installed and will coordinate with Rt. 109.

Member Rogers noted that he is a member of the Rt.109 committee and explained that the Tri Valley Commons developer is putting in the traffic signal and the other project will not be done until 2016. This project was proposed prior. The hearing on the Route 109 project is Wednesday, May 1, 2013.

Mr. Scully responded that they will coordinate the three signals. They plan to install the conduit consistent with the Route 109 project. They will match the specs for other signals and will do the signal timing plan.

There was a question about what happened if the Route 109 project is delayed.

Mr. Scully responded that this will function from Walgreen's to the site and along the corridor. It will be consistent with Rt. 109 project. This will be designed for such with radio control.

Member Gay wanted to know about the size of the road and turn lanes.

Mr. Scully responded that there is a center turn lane. This will be a two-way and will have an exclusive left. We will extend the markings and pavement width. This will be exact with the 109 project. The pavement width will be the same with the Route 109 project from curb to curb.

Mr. Hall communicated that there is still concern with the queuing. There needs to be better pavement markings for visual cues. The concept plan he has seen shows the existing driveway will change from full access to right out only. This forced traffic from East to turn into the connector road. Why does this need to be a right out?

Mr. Scully responds that they have no objection to looking at this. Gould's was fine with the right out.

Member Roger feels that these are non-issues at this point. This can be solved readily. Dunkin Donuts has the most traffic use right now. A signal system is being put in which can be adjusted.

Consultant Hall recommended that there needs to be positive control. He suggests that full access to right turn only with controlled island.

Member Tucker would be concerned that both access points would allow for blind crash.

Member Rogers says it is premature to discuss a right turn lane into Tri Valley Commons.

Mr. Scully responded that he will take a look at this in regards to the markings that could define this. The Saturday volumes are higher than weekdays. The volumes counted showed level service D almost a C and used a 130 second cycle. The operational analysis showed that this would work. We are not building a sidewalk on the south side.

Member Hayes would like the utility poles shown on wall at station 170 and 171. The coordination of the relocation of those will need to take place. He is in favor of seeing a right turn in and right out at the Gould's Plaza.

Susy Affleck-Childs referenced comment 29 on page 8 in regards to the applicant providing confirmation about agreement has been made by Gould's and owners. She asked if there was a separate written confirmation from them.

Attorney Antonellis responded that the signed site plan application is evidence enough that the Goulds are the co-applicant and in support. As far as Dunkin Donuts, they have been at the meetings. We have not entered into formal agreement but at some point will need to do so.

Susy responded that her concern is that the Goulds looked at the original plan and it has since evolved and at some point we may want to tighten this up to make sure they are still agreeable.

Member Rogers noted that the state has recommended two signal lights and not three.

DPS Director Tom Holder noted that his concern is the left hand turn and egress at Dr Cooper's office on the south side of Route 109. Do we have an opinion on the impact and will the residents be able to take a left hand turn out of there?

Mike Hall responded that this was noted in his comment #27. He had asked if there is a way to connect and have access to a signal. Did the applicant discuss this with the doctor?

Mr. Scully responded that yes in general we did discuss different options with Dr. Cooper. They did not want to relocate the driveway. There are only 5 vehicles turning into the site which is after the morning rush. A morning sample count was completed and he will provide that information to Tetra Tech. There is not much afternoon on the numbers.

Tetra Tech recommended that from a safety perspective this should be looked at. It will always be difficult to take a left. It is trying to get across the two lanes. They will review the presented data.

Mr. Scully noted there will be more room in the left lane and will have more ability to go into the left lane and then merge.

The Chairman noted with the traffic coming from East, how far back will there be a problem on the hill during snowstorms. What can be done about this?

Mr. Holder noted that he is concerned about the slope of the road on the hill. We treat (sand and salt) the hill now. We can manage and have the ability to control the lights. It is not the best scenario.

Tetra Tech wanted to know what is in the master plan for future growth for the road going into Tri Valley Commons and ultimately connecting to Holliston St. He suggested adding a pedestrian access along this roadway. Do not box yourself by the pedestrian access on the east site.

The Chairman responded that we are constrained by the width of roadway.

Mr. Scully responded that it is tight around there but and there would be a walkway access option pedestrian access coming from west back and tie in. Running on along the west side and tie into the paths on site and into the driveway. He agrees with what Tetra Tech is saying.

**Medway Commons - Karen Johnson:**

Ms. Johnson represents Medway Commons. She explained that their initial concerns were expressed at the previous meeting. To date, she has received no supplemental information. They continue to be very concerned about the Saturday traffic analysis. This is a matter of optimizing the level of service at their light for their customers.

**Medway Shopping Center:**

The Medway Shopping Center representative Bethany Bartlett was present. She explained that they have hired Vanasse Associates to look at the traffic information. Their concern is with the moving of the planned signal from the Shell station to the Tri Valley Commons site. How will this impact their center along with the 109 project? She appreciates being informed about these meetings and would welcome all the information relative to traffic and cueing.

The information presented is not all on the web, but all that has been received has been provided to Medway Shopping Center and Medway Commons.

Tetra Tech would like to have ten days to review and generate written response regarding the Saturday traffic analysis.

The Board would like to set aside an hour for traffic discussion at the next public hearing on May 14, 2013 meeting.

There will be a public hearing on the Route 109 project on May 1, 2013 with MASS DOT. This would be at the high school at 7:00 pm. It might be beneficial for the applicant to have some slides in concept to speak about this. The applicant would need to provide this information.

The internal circulation can be done prior to meeting. This might be beneficial.

The focus topic for the next public hearing will be traffic. The board still needs to discuss landscape. The Cassidy family submitted a letter this afternoon from engineering firm Places Associates which itemizes concerns including drainage. The letter from the Cassidy's was entered into the record and will be reviewed by the Consultant.

The Board also received information from Green International in response to sizes of plant materials and a chart with the height and growth rate of the various plants. The DRC will need to look at this information and will provide comments.

The DRC Chairman Matt Buckley indicated that they should have time to generate a letter for review prior to May 14, 2013 meeting.



The Board will discuss landscaping and traffic on that evening. The Board will need to get comments in regards to the architecture from Design Review Committee. The Board is waiting on information on Taco Bell.

Mr. Calarese communicated that he is still in discussion with Taco Bell. The company is in favor of the location, but we have been placed on the back burner due to another location opening. He expects to hear back from them in a week.

The Board would like to wait until the Taco Bell information is provided until acting on this.

The Design Review Committee can comment on what they have at this point. At least the Board is moving forward.

**Continuation Hearing Date Tri Valley:**

**On a motion made by Bob Tucker and seconded by Chan Rogers, the Board voted unanimously to continue the hearing for Tri Valley Commons to May 14, 2013 at 7:15 pm with the focus of the meeting being traffic.**

**Minutes:**

**April 9, 2013:**

The minutes from April 9, 2013 will be voted on at the next meeting.

**Adjourn:**

**On a motion made by Tom Gay and seconded by Chan Rogers, the Board voted unanimously to adjourn the meeting at 10:00 pm.**

**NOTE** – Tom Gay reminded the board that he will not be able to attend the May 14, 2013 meeting as he will be en route travelling to Washington, D.C.

**On a motion made by Bob Tucker and seconded Chan Rogers, the Board voted unanimously to reopen the meeting to reschedule the public hearing for Tri-Valley Commons.**

The Board and applicant discussed possible dates.

**Continuation Hearing Date Tri Valley:**

**On a motion made by Chan Rogers and seconded by Karyl Spiller-Walsh, the Board voted unanimously to continue the hearing for Tri Valley Commons to a special PEDB meeting to be held on Wednesday, May 8, 20113 at 7:15 pm.**

**Adjourn:**

**On a motion made by Tom Gay and seconded by Chan Rogers, the Board voted unanimously to adjourn the meeting at 10:02 pm.**

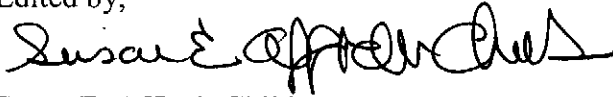
The meeting adjourned at 10:02 pm.

Respectfully Submitted,



Amy Sutherland  
Recording Secretary

Edited by,



Susan E. Affleck-Childs  
Planning and Economic Development Coordinator

COLONIAL ENGINEERING, INC.  
Surveying and Engineering

11 AWL STREET  
MEDWAY, MA. 02053  
(508) 533-1644  
(508) 533-1645 FAX

April 19, 2013

Medway Planning Board  
Medway town Hall  
155 Village Street  
Medway, Ma. 02053

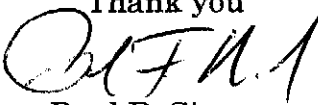
Re: Wickett Land

Dear Board Members,

As per Geno's punch list dated April 15, 2013, all revisions have been made.

1. Locus map provided on sheet 1.
2. Wetlands, walls and cart roads have been added.
3. Assessors Map 8 , parcel 16 have been added to the application.
4. Typo on acreage has been reprinted.
5. Note added to both sheets on frontage.

If you have any questions please do not hesitate to call.

Thank you  
  
Paul DeSimone

**PGC ASSOCIATES, INC.**

1 Toni Lane  
Franklin, MA 02038-2648  
508.533.8106.  
508.533.0617 (Fax)  
gino@pgcassociates.com

**RECEIVED**  
APR 23 2013

**MEMO TO:** Medway Planning Board

**FROM:** Gino D. Carlucci, Jr.

*Appeal*

**TOWN OF MEDWAY  
PLANNING BOARD**

**DATE:** April 23, 2013

**RE:** Wickett ANR on Fairway Lane, Winthrop Street and Woodland Street

I have reviewed the revised ANR plan submitted for endorsement by Henry Wickett of Medway. The plan was prepared by Colonial Engineering of Medway, and is dated March 26, 2013 with a revision date of April 18, 2013. The plan proposes to reconfigure 4 parcels of land totaling 125.8 acres into two parcels of 27.1 acres and 98.7 acres respectively. The application letter states that the intent of the plan is to sell the 98.7-acre parcel to the Town of Medway.

I have comments as follows:

1. Section 3.2.1 requires a locus map. This was not done. **There is now a locus map. OK.**
2. Section 3.2.10 requires that locations of cart paths, easements, rights-of-way, wetlands, water courses and other significant natural features. This was not done. The extensive wetlands on the site have not been shown. **The wetlands are now shown. OK.**
3. It appears from the plan that parcel labeled as Assessors Map 8, Parcel 16 is included in the new Parcel A, but this parcel (which provides access to Fairway Lane) is not listed on the application. **The applicant states that this parcel is now listed in the application. However, the application now does not list any map and parcel numbers. These should be filled in, but it has been clarified that this parcel is part of new Parcel A.**
4. The plan is presented on two sheets due to the large size of the parcels involved. However, Parcel A is labeled as 4,330,836 square feet on one sheet and 4,300,836 on the other sheet. The correct area should appear on both sheets. **The area typo has been corrected. OK.**
5. It should be noted that if Parcel A is conveyed to the Town (or any other party), Parcel B will be left with just 23.01 feet of frontage on Winthrop Street. **A note indicating this fact has been added to the plan.**

The plan clearly meets the substantive requirements for ANR endorsement. I recommend that the plan be endorsed.



## MEMORANDUM

**To:** Susan Affleck-Childs – Medway Planning and Economic Development Board  
Coordinator

**Fr:** Steven Bouley--Tetra Tech (TT)

**Re:** **Daniels Wood II**  
**Subdivision Review (Bond Estimate)**  
**Medway, MA**

**Dt:** April 19, 2013

RECEIVED  
APR 22 2013

TOWN OF MEDWAY  
PLANNING BOARD

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On April 19, 2013 at the request of the Medway Planning and Economic Development Board, Tetra Tech (TT) performed a Bond Estimate inspection and As-Built Review of The Daniels Wood II Subdivision against the approved subdivision plans dated October 29, 2009 revised March 26, 2010. The following is a list of outstanding items that should be resolved that are within the limits of Parcel A and Parcel B:

### Roadway

1. The roadway requires bituminous concrete top course.
2. The contractor should slope the bank on the south side of the roadway to prevent any erosion along the southern edge of roadway.
3. The contractor should construct the 18'-Wide Gravel Emergency Turnaround.

### Drainage

4. The contractor should install the proposed "Roof Runoff Leaching Field."

### Site Work

5. The contractor should spread the existing topsoil on-site to the 6" depth as specified on the approved plans. Topsoil/Loam should be imported if the 6" depth cannot be achieved with the existing topsoil.
6. The contractor should seed all disturbed areas as specified on the approved plans.



TETRA TECH

### **As-Built Review**

7. The As-Built plan is sufficient as submitted for the items that have been constructed to date. An additional As-Built should be submitted upon project completion.

If you have any questions or require additional information, please don't hesitate to contact me at (508) 903-2382.

Very truly yours,

Steven Bouley  
Civil Engineer

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TETRA TECH

Bond Value Estimate  
Daniels Wood II  
Daniels Road  
Medway, Massachusetts  
April 19, 2013

One Grant Street  
Framingham, MA 01701  
Tel 508.903.2000 Fax 508.903.2001

DESCRIPTION	QUANTITY	UNIT	UNIT COST	ENGINEERS ESTIMATE
HMA Top Course	23	TON	\$122.00	\$2,806
Gravel Turnaround-Processed Gravel	18	CY	\$30.00	\$540
Gravel Turnaround-Bank Run Gravel	32	CY	\$30.00	\$960
Roof Runoff Leaching Dry Well	1	LS	\$1,500.00	\$1,500
Fine Grading	1	LS	\$500.00	\$500
Loam Borrow (Spread Existing)	255	CY	\$20.00	\$5,100
Seeding	1,550	SY	\$2.00	\$3,100
			<b>Subtotal</b>	\$14,506
			<b>25% Contingency</b>	\$3,627
			<b>Total</b>	\$18,133

Notes:

1. Unit prices are taken from the latest information provided on the Mass DOT website. They utilize the Mass DOT weighted bid prices (Combined - All Districts) for the time period 04/2012 - 04/2013.

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APR 22 2013

TOWN OF MIDWAY  
PLANNING BOARD

## Susan Affleck-Childs

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**From:** Diaz, John [jdiaz@gpinet.com]  
**Sent:** Tuesday, April 23, 2013 2:38 PM  
**To:** Hall, Michael  
**Cc:** Howie, Geoffrey; David Damico; Susan Affleck-Childs; Thomas Holder; David  
**Subject:** Green International Response to comments

RECEIVED  
APR 24 2013

TOWN OF MEDWAY  
PLANNING BOARD

To all

I took a quick look through Bill's responses. There are 2 responses that I am concerned about. – Some of the others I'll defer to Mike. The two that jump out are Comment 16...

*Comment 16* The signal phasing proposed site driveway includes protected left-turn lead/lag phasing phasing is known as a "yellow trap" and there are safety concerns related to this ty phasing. The analysis should be revised to eliminate this type of phasing.

*Response* We will continue to fine tune the signal timing plan and address this issue in the final des is intended to avoid the 'trap' which would include providing for protected phases for o both left turn movements. The question is whether the permitted one or both phase eliminated for the EB/WB left turn movements. We can continue to work this design a out with the Route 109 designer.

This question needs to be answered before we can truly evaluate the impacts of the signal. If the phasing changes to eliminate the trap, that will impact LOS, Delays and Queues.

Comment 30...

*Comment 30* The concept plan should be updated to show the proposed pavement markings or Street within the limits of work for the proposed signal, and how the pavement markin transition to the existing conditions east and west of the limits of work. A separate c plan should be prepared that shows how the pavement markings will match into the prc Route 109 improvements being design (minus the signal at Direct Tire west of the prc project site).

*Response* The latest concept plan has been updated to show the limits of pavement markings be STA. 163+60 - STA. 173+50, which can be seen, attached to this response. Once apj the design plan for the Tri-Valley Commons project will be coordinated in the GPI (Rou designs) who will develop the overall long range Medway Plan for Route 109.

Green has provided a plan that shows how the pavement markings associated with the potential new signal would tie back into the existing markings on the corridor today. However, we have repeatedly asked to see how the new signal would tie into the proposed pavement markings currently shown as part of the Route 109 corridor. This is critical as the markings that are currently proposed as part of the Route 109 reconstruction with the signal at the Shell Station have been designed to consolidate and control left turn movements to and from the south side of Route 109. Moving the signal to the east creates issues on accessing and egressing some properties on the south side of Route 109, that were



not an issue under the Route 109 corridor design. Therefore, we strongly feel that it is up to the applicant, not the Route 109 Design Team, to determine appropriate pavement markings that provide safe access to all properties in the area impacted by the relocation of the signal to the east. Therefore, we request again that Green provide a pavement marking plan that shows how the pavement markings associated with the proposed relocated signal would transition to and from the proposed markings on the current Route 109 Design Plans.

These are really my only 2 comments, both which have been made before. I can come to the meeting tonight if you think it is necessary and can contribute to anything new. If its just to request this info again, it probably is not cost effective for me to be there. Let me know either way.



**John W. Diaz, PE, PTOE**  
*Vice President / Director of Traffic Engineering*

**Greenman-Pedersen, Inc.**  
Engineering and Construction Services

181 Ballardvale Street, Suite 202 Wilmington, MA 01887  
d 978.570.2953 | f 978.658.3044 | c 617.921.9606  
[jdiaz@gpinet.com](mailto:jdiaz@gpinet.com) | [www.gpinet.com](http://www.gpinet.com)

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## Susan Affleck-Childs

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**From:** Bill Scully [BScully@greenintl.com]  
**Sent:** Friday, March 15, 2013 9:10 AM  
**To:** michael.hall@tetrattech.com  
**Cc:** RVCal@caldevel.com; jantonellis@antonellislaw.com; Susan Affleck-Childs  
**Subject:** Medway Tri Valley Commons  
**Attachments:** Medway Count Request, Green International Affiliates.pdf

Mike

I have attached a diagram indicating where we are proposing to conduct new Saturday traffic counts between 11AM and 1PM. These include the 2 existing signalized intersections, the area around our proposed driveway and the 3 driveways of Medway Shopping Center. We will catch traffic from a number of other adjacent driveways but I have not included every single one - basically the ones near the current proposed Rt 109 signals, the center's "main" drive and then down near our site.

Please review and if you have any questions or want to discuss, don't hesitate to contact me.

Thank you.

Bill  
Director of Transportation Planning  
Green International Affiliates, Inc.  
239 Littleton Road  
Westford, MA 01886

978-923-0400  
978-923-0404 (fax)  
508-395-3334 (cell)

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01/14/2012

WILSON'S

CONTELLI

Google

Eye alt

42°09'04.82" N 71°24'40.28" W elev 265 ft

761 ft

e: 6/19/2010 1995



**Susan Affleck-Childs**

---

**From:** Bill Scully [BScully@greenintl.com]  
**Sent:** Thursday, April 18, 2013 1:06 PM  
**To:** Pellegrini, David  
**Cc:** Hall, Michael; Susan Affleck-Childs  
**Subject:** RE: Tri Valley Traffic

David

Things have taken longer to address and prepare a submittal package than I had originally anticipated. Some of it had to do with data collection, new analysis verifying various items as well as scheduling conflicts. I plan on submitting two separate packages at this point. The first would be a 'Response to Comments' letter with attachments and the second one would be the Saturday analysis. I am anticipating the first item will be transmitted by the end of day today. I will email you directly when I transmit to the Town. The second item may not be ready until during the day tomorrow. I'll also send to GPI to keep them in the loop as well.

I will be at Tuesday's meeting and plan on giving the Board an update on our analysis, response and access plan. I think we will still be able to address the most outstanding issues at that meeting.

I fully understand some time to prepare a formal response but I believe you will be able to provide some verbal insights to the Town at the Tuesday meeting. I am not under the assumption that the meeting was closing that night, though I am just guessing. If that is the case, then I imagine you could follow up with your written report. As for the other engineers of abutting properties (I think there is only one (Tighe & Bond) at this point, I told Paul I would send him copies of material when I submitted to Town. I'm sure he'll have some time to review prior to Tuesday night.

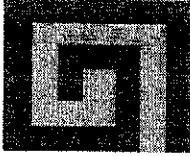
Thank you.

Bill  
Director of Transportation Planning  
Green International Affiliates, Inc.  
239 Littleton Road  
Westford, MA 01886

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508-395-3334 (cell)

**From:** Pellegrini, David [<mailto:david.pellegrini@tetrattech.com>]  
**Sent:** Thursday, April 18, 2013 10:23 AM  
**To:** Bill Scully  
**Cc:** Hall, Michael; Susan Affleck-Childs ([sachilds@townofmedway.org](mailto:sachilds@townofmedway.org))  
**Subject:** Tri Valley Traffic

Hi Bill,



GREEN INTERNATIONAL AFFILIATES, INC.  
239 LITTLETON ROAD, SUITE 3, WESTFORD, MA 01886  
TEL (978) 923-0400 FAX (978) 923-0404

April 18, 2013  
Mr. Andy Rodenhiser, Chairman  
Medway Planning Board  
155 Village Street  
Medway, MA 02053

RECEIVED  
APR 18 2013

Re: Proposed Tri Valley Commons  
Response to Traffic Study Comments

TOWN OF MEDWAY  
PLANNING BOARD

Dear Mr. Rodenhiser:

Green International Affiliates, Inc. (Green) has reviewed the comments prepared by the Town's consultant (Tetra Tech) in a March 6, 2013 letter regarding the Traffic Impact and Access Study for the Tri Valley Commons project located at 72 Main Street. On behalf of the Applicant, a set of responses has been prepared. In general, we do not believe any of the comments raise issues that are not resolvable or create impediments to the proposed project. The comments did require new analysis, particularly for Saturday conditions, which are being submitted in a separate document. For convenience, the Tetra comment or its essence has been repeated followed by a response. Details are attached where appropriate.

Study Area

**Comment 1** The traffic study should be revised to include the intersection of Main Street with the Shopping Plaza West Drive/U.S. Post Office Driveway. This intersection is unsignalized today, however, it is proposed to be signalized as part of the Route 109 Improvements Project ... so it is important to confirm that the proposed signal will be able to accommodate the additional traffic demands.

**Response** An analysis was completed of this location under estimated Build Conditions under signalized conditions. The proposed signal at the Shopping Plaza West Driveway and USPS Post Office Driveway is also included in the supplemental Saturday Traffic Analysis Report. The analysis was completed for PM and Saturday peak hours where data was available. Table 1 summarizes the results for the intersection of the Shopping Plaza West Drive/U.S. Post Office Driveway during the PM peak period. The analysis showed that the proposed signal at this location with Tri Valley Commons development would operate at a LOS 'C' will occur in the PM peak hour. Saturday results are included in a separate document and indicated an overall LOS 'D' during the midday peak hour.

Table 1 Summary of LOS Analysis PM Peak Hour Future Build at Medway Shopping Center West Drive			
	v/c	Delay	LOS
Northbound Left/Thru/Right	0.39	24.9	C
Southbound Left/Thru/Right	0.26	42.6	D
Eastbound Left	0.25	6.8	A
Eastbound Thru/Right	0.66	14.5	B
Westbound Left	0.10	4.5	A
Westbound Thru/Right	0.92	31.5	C
Overall	0.92	23.4	C

\*Based on GPI Signal Timing

Study Hours

Comment 2 The traffic study should be revised to include an evaluation of the Saturday midday peak hour in addition to the weekday AM and PM peaks...

Response A supplemental Saturday Traffic Analysis has been provided in a separate document.

Traffic Volumes

Comment 3 The traffic volumes used in the study were collected April 2011. As the data is less than three years old use of this data is appropriate for the study.

Response No response required.

Comment 4 The study adjusted (increased) the April volumes by two percent to account for seasonal fluctuations in traffic flows on Main Street. The adjustment used in the study was appropriate.

Response No response required.

Safety Analysis

Comment 5 The safety analysis presented in the study references the safety analysis results from the Functional Design Report (FDR) prepared for the Route 109 Improvements project. The applicant should provide the following information from the Route 109 FDR as an appendix to the revised traffic study for each of the study intersections:

- MassDOT crash data
- Crash Rate calculations

Response The MassDOT crash data and Crash Rate calculations included in the Route 109 FDR have been attached to this response.

Future Traffic Projections (non-project)

Comment 6 Future traffic volumes were projected for a six year time horizon (2018) and existing volumes were increased by approximately 4.5 percent. The growth rate and time horizon used in the study are appropriate.

*Response* No response required.

#### Project Trip Generation

Comment 7 The study used Institute of Transportation Engineers (ITE) Land Use Code (LUC) 810 (820) - Shopping Center. This is an appropriate LUC to estimate trip generation for this project.

*Response* No response required.

Comment 8 The study assumed a Pass-By rate of 25 percent. This is an appropriate assumption for the type of project proposed.

*Response* No response required. However, it should be noted that we believe this rate is conservative and based on the project location, expected uses and Route 109 characteristics, actual passby rate is expected to be higher resulting in lower net impact.

Comment 9 The revised study should include trip generation estimates and analysis for the Saturday peak hour.

*Response* The Saturday Traffic Analysis supplemental report includes trip generation estimates and analysis for the Saturday peak hour and is provided in a separate document.

#### Project Trip Distribution

Comment 10 The study assumed an approximate distribution to/from the site of 32 to 35 percent to the west and 68 to 65 percent to the east. The applicant should provide back-up data to support the distribution pattern assumed in the study.

*Response* Trip distribution was based on existing traffic patterns. Calculations for this distribution can be found attached to this response. It should also be noted that the estimated trips to the east (65% +/-) will disperse to a significant extent at Holliston Street.

#### Intersection Operational Analysis

Comment 11 Existing Conditions  
The signalized analysis of the intersections of Main Street with Holliston Street and Medway Commons (Walgreens) is consistent with the Route 109 FDR in terms of cycle length and signal phasing.

*Response* No response required.

Comment 12 Future No-Build Conditions

The signalized analysis of the intersections of Main Street with Holliston Street and Medway Commons (Walgreens) assumes changes in the signal phasing that are proposed for the Route 109 project however, the current phasing sequence is assumed for the Existing and Build conditions analyses. For consistency and comparative purposes, the No-Build analysis should be performed using the same phasing sequence for all three analysis cases.

*Response* At this stage, we respectfully disagree that the future condition should match the existing condition. The traffic analysis has assumed that the Route 109 reconstruction project would be in place by 2018 and given that, the No-Build analysis is based on the currently proposed Route 109 improvements in relation to the traffic signals located east of Tri Valley Commons. The Route 109 reconstruction project is currently anticipated to begin in 2015 and should be completed by 2018. This analysis provides the ability to judge the development project's impact on the proposed design plan and was requested by the Town last year during the preliminary analysis and discussions.

Comment 13 Future Build Conditions

The study should be revised to also present an analysis of the proposed site driveway without signalization.

*Response* An analysis was completed in the original study originally without signalization (LOS F) and was included in the Appendix of the Report. A copy of the analysis sheet is attached to this response as well.

Comment 14 The proposed signal at the site driveway/Dunkin Donuts Drive is assumed to operate with 130 or 140 second cycle length, which appears to be unnecessarily long. The Route 109 project is being designed with cycle lengths that range between 90 and 120 seconds, which are more appropriate for the corridor. The study should be revised or supplemented to show traffic operations assuming a maximum cycle length of 120 seconds.

*Response* The original Build condition analysis completed in the Fall 2012 with a signal in place at the site drive was based on the Route 109 signal timing plan as currently designed by GPI that had a 90 second cycle in both peak hours. While the overall LOS was shown to be acceptable, the SYNCHRO resulted indicated the potential for long maximum queue in the WB direction between Holliston Street and the Site Drive. It was requested by the Town and GPI to evaluate an alternative cycle length to best manage the westbound queue. As a result, the Build analysis was modified in response to comments and requests. The proposed cycle lengths of 130 and 140 for AM peak period and PM peak period, respectively, were used to better manage the westbound queue, particularly during the PM peak hour. We remain flexible in the final design of the traffic signal timing plan especially during the interim period before the overall Route 109 project has been completed. Our intent is to meet with the Route 109 designer and Town staff when we begin design of the Tri Valley Commons traffic signal and select a final timing plan (cycle) to advance. The initial operations would be monitored by the Applicant so fine tuning adjustments can be made as well.



Comment 15 Analysis of the site driveway should be revised to account for pedestrian activity/actuation as the proposed signal.

*Response* It is not expected that a high pedestrian volume will occur at this signal, although the design includes accommodation for pedestrian actuation. In response to this comment, however, an analysis was completed that includes some pedestrian actuation at the proposed signal and can be found attached to this response. Based on the analysis, we do expect that the pedestrian activity will have a minimal effect on traffic operations. It should be noted that the Route 109 design plans also accommodate pedestrians in the design but the FDR analysis was completed assuming low or no pedestrian actuations. Our analysis has been consistent with the Route 109 FDR approach.

Comment 16 The signal phasing proposed site driveway includes protected left-turn lead/lag phasing. This phasing is known as a "yellow trap" and there are safety concerns related to this type of phasing. The analysis should be revised to eliminate this type of phasing.

*Response* We will continue to fine tune the signal timing plan and address this issue in the final design. It is intended to avoid the 'trap' which would include providing for protected phases for one or both left turn movements. The question is whether the permitted one or both phases are eliminated for the EB/WB left turn movements. We can continue to work this design aspect out with the Route 109 designer.

Comment 17 The signalized analysis of the intersections of Main Street with Holliston Street and Medway Commons (Walgreens) is not consistent with the Route 109 FDR in terms of the cycle length assumed for the analysis. The applicant's study has assumed that the intersections will operate with 130 or 140 second cycle lengths. The study should be revised or supplemented to show traffic operations assuming a maximum cycle length of 120 seconds with the existing phasing sequence at these intersections. This analysis will represent the "interim condition" (i.e., pre-Route 109 Improvements) at these intersections.

*Response* See above response.

Comment 18 The study should be revised to include results for the intersections of Main Street with Holliston Street and Medway Commons using the proposed cycle lengths and phasing sequence from the Route 109 FDR to ensure that the intersections will function adequately in the "long-term" as well as in the interim condition.

*Response* See above response.

Comment 19 The Build analysis for the intersection of Main Street/Shopping Plaza West/U.S. Post Office Drive should be performed assuming the proposed improvements associated with the Route 109 project. It is not necessary to analyze it in an unsignalized condition with the site traffic.

*Response* This analysis was completed as presented earlier.

Comment 20 The applicant should provide SimTraffic queuing data and results for the intersection of Main Street and Holliston Street.

*Response* The SimTraffic analysis was provided in the appendix of the Traffic Impact and Access Study. It is attached to this response as well.

Comment 21 As part of the revised traffic study submission to the Town, the applicant should provide electronic copies SYNCHRO traffic model files for the Build conditions.

*Response* The electronic copies of the SYNCHRO traffic model files were provided to the Route 109 consultant as part of their review of the traffic impact in relation to the Route 109 project.

Comment 22 •On page 22 of the study, the applicant states that "motorists are expected to enter the site efficiently with short vehicle delays (LOS 'B' for both AM and PM Peak) and minimal impact to Main Street traffic flow". This is true for the PM peak hour, however, based on the data presented in Table 8 traffic operations in the AM peak hour at the proposed site drive are predicted to be LOS C or LOS D. The applicant should explain the discrepancy between Table 8 and the statement on page 22.

*Response* The statement was incorrect and may have been inadvertently not changed subsequent to presenting the final signal timing plan. Based on the final analysis, the estimated LOS for the WB left turn volume in the morning will operate at LOS 'E' with relatively long delays. It should be noted that expected volume of motorists turning left into the site will be relatively low during this period and the vehicle queues at maximum is estimated to be less than 80 feet (4 vehicles)

#### Sight Distance Analysis

Comment 23 The sight distance analysis performed for the study indicates that there will be adequate sight distance at the proposed site drive. The analysis methodology and results are appropriate.

*Response* No response required.

#### Signal Warrant Analysis

Comment 24 The signal warrant analysis performed for the study indicates that a signal is warranted at the proposed site drive. The analysis methodology and results are appropriate.

*Response* No response required.

Driveway/Signal Concept Plan

Comment 25 Traffic movements into the Dunkin Donuts site at the entry/exit driveway appear likely to be difficult for larger vehicles. The applicant should provide analysis and or plans (e.g., AutoTurn analysis) that demonstrate how vehicles will be able to maneuver into the site via the shared entry/exit driveway.

*Response* We recognize that the existing situation can be challenging and have taken care to accommodate the trucks serving the establishment. Currently, trucks tend to arrive from the west and back into the site. There are two (2) deliveries per week and during the off-peak times (early afternoon). While there is no reason Dunkin would change the delivery operations, the western drive design allows for a truck to turn into the site (head on). AutoTurn analysis has been conducted in evaluating this area since the initial concept plan. The final concept plan accommodates the WB-50 vehicles via eastbound right turn entry driveway. The design process of the Dunkin Donuts driveways has been continuously consultation with the Dunkin Donuts franchise owner and their engineer. Adjustments to the island had been made during the course of plan development. AutoTurn movements are attached. The movements will remain somewhat challenging as trucks would 'swing' out towards the centerline to turn into the driveway for this type of entering movement. With minimal delivery activity and off-peak times with more than adequate visibility, this would not be anticipated to create any unmanageable issue.

Comment 26 The applicant should explain how access from Main Street westbound into the Medway Savings Bank site will likely function (site is west of and adjacent to the Dunkin Donuts site).

*Response* West of the Tri-Valley driveway, a left turn lane has been demarcated to accommodate left turning movement into the existing Middlesex Savings Bank driveway.

Comment 27 The applicant should explore with the property owners of the Dunkin Donuts property and the property to the east (medical offices) the possibility of providing a cross connection between those parcels so drivers exiting that site will be able to do so via the proposed traffic signal.

*Response* There has been discussions with the property owner of Dunkin Donuts and the Medical Office to develop a cross connection between these parcels. The applicant has no authority to pursue the patron even if it were feasible. However the idea was raised to both parties. Furthermore, the Applicant met with the medical office owner to discuss the plan and possibility of relocating their drive more to the east to alleviate potential exiting delays, however, that option was not endorsed.

Comment 28 The applicant should provide more details in the concept plan related to the sidewalk in front of the site, such as limits of work, ADA accessibility and consistency with the Route 109 design plans.

*Response* The handicap ramps and sidewalks will be in ADA compliance with MassDOT standards and consistent with the Route 109 FDR. The sidewalk construction on the north side of Route 109 is to follow the Route 109 plans.

Comment 29 The applicant should provide confirmation that agreements have been made with the owners of the Gould's Colonial Plaza and the Dunkin Donuts properties for the proposed physical changes and cross connections.

*Response* Confirmation that agreements have been made with the owners of the Gould's Colonial Plaza and Dunkin Donuts properties has been provided to the Towns.

Comment 30 The concept plan should be updated to show the proposed pavement markings on Main Street within the limits of work for the proposed signal, and how the pavement markings will transition to the existing conditions east and west of the limits of work. A separate concept plan should be prepared that shows how the pavement markings will match into the proposed Route 109 improvements being design (minus the signal at Direct Tire west of the proposed project site).

*Response* The latest concept plan has been updated to show the limits of pavement markings between STA. 163+60 - STA. 173+50, which can be seen, attached to this response. Once approved the design plan for the Tri-Valley Commons project will be coordinated in the GPI (Route 109 designs) who will develop the overall long range Medway Plan for Route 109.

#### Proposed Site Plan

Comment 31 The site plan does not provide a sidewalk or pedestrian connection(s) from the site to the sidewalk along the north side of Main Street.

*Response* A direct sidewalk connection has been developed from the street to the site, which is shown on current plans.

Comment 32 The site plan lacks internal pedestrian facilities, particularly a safe and designated facility that will connect Buildings B/C/D to the front of the site and ultimately to the sidewalk along Route 109.

*Response* Internal site pedestrian facilities have now been provided and are shown.

Comment 33 According to Table 10, the average queue during the weekday PM peak hour for the thru/right turn lane exiting the site is approximately 165 feet, and the 95<sup>th</sup> percentile queue will be approximately 350 feet. The proposed cross-connection driveway between the site and Gould's Colonial Plaza is located approximately 120 north of Main Street. Therefore, traffic entering the site that desires to turn left into the cross-connection will be blocked approximately 50 percent of the time. This could cause problems on the entry drive, with traffic potentially backing up to Main Street during busy retail periods.

Mr. Andy Rodenhiser  
Re: Response to Traffic Study Comments  
April 18, 2013  
Page 9

*Response* A "DO NOT BLOCK" sign for the southbound traffic north of the cross-connection has been proposed to deter vehicles from blocking northbound left turning movement. Within the cross-connection, a "STOP" sign for eastbound traffic has also been proposed on the plan.

Comment 34 The applicant should consider moving the cross-connection to the north so that it lines up opposite the proposed internal driveway thereby creating a four-way intersection within the site. This relocation will place the cross-connection north of where the average queue is expected to be, thereby reducing the amount of time access to the cross connection may be block by vehicles waiting to exit the site. Please note that this recommendation is made pending the results of the Saturday queuing analysis in the revised study.

*Response* The location of the cross-connection was determined based on the most convenient location for Gould's Plaza. There is the detention basin that serves Gould's Plaza, located north of the proposed cross-connection within their property, which is not proposed for reconstruction. This proposed location was determined to be the most suitable cross-connection for vehicles in order to not conflict with the detention basin or result in removal of parking stalls. A pedestrian connection maybe proposed further north of the basin and would connect with the back building of Gould's. The location of the connection also aligns with the connection between Gould's and Medway Shopping Center. It is consistent with the "historical conceptual master plan" for revitalizing the development parcel along the north side of Route 109.

It is hoped that these responses have adequately answered questions and clarified analysis. If there are further questions or need to discuss certain items in more detail, do not hesitate to contact me. We look forward to continuing working with the Town and its consultants to develop a successful project with safe, manageable access.

Very truly yours,  
GREEN INTERNATIONAL AFFILIATES, INC.

*William J Scully*

William J. Scully, P.E.  
Director of Transportation Planning

Attachments

Cc R. Calarese  
J. Antonellis  
M. Hall, Tetra Tech  
G. Howie, GPI



# Places Associates, Inc.

Planning, Landscape Architecture, Civil Engineering and Surveying  
Certified WBC

April 22, 2013

Mr. David Cassidy  
42 Ellis Street  
Medway, MA 02053

RECEIVED  
APR 23 2013

Re: Tri Valley Commons  
72 Main Street, Medway, MA  
Places Associates Project No. 5009

TOWN OF MEDWAY  
PLANNING BOARD

Dear Mr. Cassidy,

As requested, this office has reviewed the proposed "Tri Valley Commons" plans as it relates to your abutting property owned by Freil Realty II LLC. Some of our concerns directly relate to the impact on your property while others, such as internal circulation, impact the overall functionality/feasibility of the site as currently proposed. Please note that I did not review this plan for compliance with Medway Zoning and other applicable regulations as the Town will have their own reviews by Professional Engineers and it would be redundant.

#### Drainage Concerns:

1. There is a detention basin on the Nagog Knoll Realty Trust property. Sheet 5 shows a directional arrow (presumably direction of flow) towards the basin. There is no outlet indicated. Where does the overflow go? Will the retaining wall in cut allow this basin to flow onto the Tri Valley site and into the wetlands?
2. The outlet to the wetlands, shown as a CMP, is not visible in the field. It is our opinion that the applicant should verify it's location and provide modeling of the hydraulic capacity in the drainage calculations. If the culvert is a hydraulic restriction, the level of ponding in the wetlands can be significantly different than the HydroCAD model would imply, potentially impacting your property.
3. There is insufficient information on the downstream conditions and capacity of the existing drainage system or whether the system is full of accumulated sediment and need of remediation.
4. There is a discrepancy between the elevations (and amount of stone) between the drainage calculations and the details provided for the detention/infiltration areas. It has been our experience as inspectors in other towns that the fill material adjacent and below the detention/infiltration areas should be clean gravel fill, similar to a Title 5 septic system in fill.
5. The drainage calculations do not show the connection between the two detention/infiltration areas at DMH -12. This should be included in the model as the combined hydrographs may change the peak rates of runoff to the wetlands and may impact pipe capacities if surcharging occurs.
6. The 24" discharge is near your property and it is recommended that clearly show a swale directing the discharge towards the wetlands and away from the property line, particularly if there is more discharge than currently shown in the calculations.
7. The underground detention/infiltration areas will recharge the majority of the site runoff within 30' of the 20' high retaining wall. This will surcharge the soils behind the wall and likely weep through the wall face. It does not appear that this volume of water has been included in the calculations.

510 King Street, Suite 9, Littleton, Massachusetts 01460  
Voice: (978) 486-0334 Fax: (978) 486-0447 E-mail: Places.littleton@verizon.net

8. We note that there are no details for this wall and it will need to be designed and stamped by a Professional Structural Engineer. Setbacks from the face of the wall will likely require a greater setback to the 4' diameter drainage structures (catchbasins 11, 12 and 13). If the wall requires the use of a geogrid, there are strict requirements for structures permeating the grid and should be defined before the plans are approved as it could have direct impact on the location of the wall and drainage structures.
9. As noted above, three double catchbasins are adjacent to the wall at low points. Given the potential for these grates to be partially blocked by snow in the winter or blowing trash/leaves during other seasons, it is our recommendation that high capacity grates be utilized to minimize the potential for ponding adjacent to the wall.

Site Concerns:

1. The 20'+ high retaining wall is shown 2' off the property line. Typically large retaining walls require a footing or level base. Without the design plans, we cannot make a determination as to the actual offset to your property. It is our recommendation that you pursue a formal request from the Building Commissioner as to whether this wall is a "structure" and therefore subject to the same setbacks as a building. This wall is vital to support the soils, parking and buildings. Without the wall, the site development would be significantly reduced. It is noted that any wall greater than 4' is subject to the provisions of the Building Code requiring a pedestrian safe fence at the top.
2. The existing netting to protect the Tri Valley property from golf balls at the driving range is approximately 50-55' high. Many balls were observed on the Tri Valley site, indicating that some balls occasionally exceed the height of the netting. The height of the proposed walls, buildings and appurtenances will be near the maximum height of the netting.

It is strongly recommended that the Tri Valley proponent provide additional netting at the top of their wall to protect their facilities from stray golf balls. You may also want to request that the Planning and Economic Development Board make a finding that the driving range has made a reasonable effort to contain any impact from stray golf balls within their property and that because of the height of the Tri Valley Common development; they are responsible for any additional protection needed.

3. The traffic circulation on the site is very tight. This office has the following concerns regarding circulation and parking:
  - a. The northeast corner of Building D does not appear sufficient for vehicular turns. The edge of pavement scales 18' from the corner of the building. A passenger vehicle has a 15.3' inside and 25.8' outside radius and a SU-30 has 28.4' inside, 42' outside radius. This access is labeled "Fire Lane" and is not accessible by the typical fire apparatus.
  - b. It also is insufficient for delivery box trucks to serve Buildings BCD – there does not appear to be sufficient space to turn around if parking is in use, requiring the vehicle to back down the driveway.
  - c. To access the loading dock for Building F, a truck would logically enter to the northerly entrance by Building E, drive past the loading dock and back in. This driveway is marked "Do Not Enter" prohibiting this movement. This also would impede a front loaded trash removal vehicle from accessing the dumpsters.
  - d. Dumpster location for Buildings BCD also is very tight for front loaded trash vehicles.
  - e. Compact car spaces are typically allowed if they are segregated with signage from regular parking spaces. Typically, they are dispersed throughout a shopping center so that businesses have a similar mix of parking. It is noted that the compact spaces are clustered around Buildings BCD with 49 compact spaces versus 23 regular spaces (excluding HP spaces). This inequitable distribution further impacts circulation as people are more likely to ignore the signage and make the aisles tighter.

*Places Associates, Inc.*

510 King Street, Suite 9, Littleton, Massachusetts 01460

Voice: (978) 486-0334 Fax: (978) 486-0447 E-mail: [Places.littleton@verizon.net](mailto:Places.littleton@verizon.net)

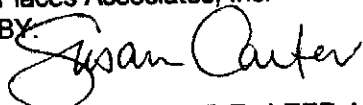
4. The plans do not have any indication of snow storage on site.
5. The lighting plan provides full cut off lighting with shields. However, the light spillage is likely to be greater with the elevated site allowing light over the retaining walls. The photogrammetric plan does not take this into consideration.
6. No screening has been provided to shield your property from headlights from the on-grade parking behind Building B.
7. No plantings have been proposed to break up the view of the wall and buildings to minimize the visual impact to your property. It is recommended that vegetation be utilized to break up the massing of the wall and buildings on the sides and rear of the Tri Valley site as it faces your property. We also note that this wall will be to the south of your property, creating a significant area of shade/shadows on your property which may impact existing vegetation.
8. The construction and Erosion Control notes are lacking. The construction sequencing is critical in the control of sediment while the site is under construction. Mulch socks may be sufficient once the wall is constructed and stabilized but is insufficient during the grubbing and stripping of the site. It is our recommendation that you request a more detailed plan, including intermediary erosion control and temporary settling basins as is required for the Stormwater Pollution Prevention Plan (SWPPP) under the National Pollution Discharge Elimination System (NPDES) permit.
9. Plans should have provisions to protect the existing stonewall which is the common property line.
10. We note that they have extended the driveway to your property. It is recommended that all utilities be extended and capped at the property line if any future connection is likely. It should also be noted that you will need easements from both the Tri Valley Commons site as well as the Nagog Knoll Realty Trust if this access is to be used in the future.

If you or any of the Town Boards/Commissions have any questions regarding this review, please feel free to contact the undersigned. When you receive responses to these comments, please forward them to me for final review.

Thank you,

Places Associates, Inc.

BY



Susan E. Carter, P.E., LEED AP  
President

*Places Associates, Inc.*

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# Places Associates, Inc.

Planning, Landscape Architecture, Civil Engineering and Surveying

Certified WBE

**RECEIVED**  
APR 23 2013

Places Associates, Inc. was established in 2009 a woman-owned enterprise (WBE), multidisciplinary professional corporation in Massachusetts. Our goal is to provide a single source, professional service firm providing land use and design, permitting and construction support services as an integral part of the design team for residential, corporate, governmental, and institutional clients.

TOWN OF MIDWAY  
PLANNING BOARD

Over 75 years combined experience in design and construction support

- Cost effective problem solving for difficult sites
- LEED Accredited Professionals using the latest "green" design techniques

There are no more easy sites. Places Associates has the staff who can provide the services needed to navigate through the layers of permits to bring a project to fruition.

Our services include:

- |                                    |                               |   |
|------------------------------------|-------------------------------|---|
| ◆ Property Surveys                 | ◆ Site Plan designs           | ◆ Construction Layout                         |
| ◆ Baseline and Topographic Surveys | ◆ Drainage Analysis/Studies   | ◆ Construction Inspections                    |
| ◆ Legal Descriptions               | ◆ Stormwater Management Plans | ◆ Construction Specifications for Public Bids |
| ◆ Wetlands Delineation             | ◆ Water/Sewer Systems         | ◆ As-Built Inspections                        |
| ◆ Land planning                    | ◆ Subdivision Designs         | ◆ Land Court Plans                            |
| ◆ Feasibility Analysis             | ◆ Industrial Park Designs     | ◆ Expert Testimony                            |
| ◆ Master Plan Development          | ◆ Wetlands Replication        | ◆ Permitting                                  |

Our staff includes Registered Professional Engineers (P.E.), Landscape Architects (R.L.A.), Registered Professional Land Surveyor (P.L.S.), Title 5 Certified Soil Evaluators, and Title 5 Certified System Inspectors, and other technical support staff.

Our multidisciplinary staff works regularly with an extensive network of specialized consultants to allow us to offer a complete package of services to address any and all issues that may arise in the land development process.

Places Associates offers start to finish services from the initial survey, design and landscaping through construction as-builts and certifications.

510 King Street Suite 9 Littleton, MA 01432 978.486.0334 [places@placesassociates.com](mailto:places@placesassociates.com)



# Places Associates, Inc.

Planning, Landscape Architecture, Civil Engineering and Surveying  
Certified WBE

## MUNICIPAL CONSULTING

**R E C E I V E D**

APR 23 2013

TOWN OF STOW  
PLANNING BOARD

Places Associates, Inc. offers continuing or one-time services directly to town Boards and Departments. Services have ranged from acting town Engineer to contractual municipal consulting, to providing reviews of individual reports and plans. We have reviewed a range of projects including of subdivisions; residential, commercial and industrial site plans; Comprehensive permit (40B) housing and common driveways for compliance with the regulations and with sound engineering practices. We have provided construction inspections of roadways, review of bond releases and road acceptances and review of existing drainage issues under litigation for various towns.

All members of our professional staff have served or currently serve on local, municipal volunteer boards including: Board of Selectmen, Planning Boards, Conservation Commissions, Capital Planning, Affordable Housing, By-law review Committees and others.

We believe that our staff's involvement with their hometown boards gives us the unique perspective of understanding the issues and concerns of volunteer board members as we help the Boards to evaluate projects before them. We have also worked with Boards on updates and implementation of changing technologies in their regulations and zoning by providing language clarification, specifications and a working knowledge of the changes happening in other municipalities.

- Town of Stow, MA- Engineering consultant to Planning Board, Zoning Board of Appeals, Conservation Commission and Land Use Task Force
- Town of Boxborough, MA- Engineering Consultant to Planning Board and Zoning Board of Appeals
- Town of Carlisle, MA- Recommendations to Planning Board for Sub-division Rules and Regulations updates
- Town of Groton-Project specific engineering review of drainage
- Town of Hudson, MA - Project specific consultant to Conservation Commission for plan review
- Town of Holden, MA - Project specific engineering plan review for Planning Board
- Town of Hubbardston, MA- Project specific engineering consultant for Planning Board
- Town of Chelmsford, MA - Solar Farm by-law

**SUSAN CARTER, P.E., LEED AP**  
**President- Places Associates, Inc.**

**R E C E I V E D**  
APR 23 2013

TOWN OF MIDWAY  
PLANNING BOARD

**PROFESSIONAL REGISTRATIONS:**

Professional Civil Engineer -Massachusetts No. 41270  
LEED AP (Leadership in Energy and Environmental Design Accredited Professional)  
Massachusetts Certified Soils Evaluator SE # 341  
Massachusetts Title 5 System Inspector SI# 4954

**EDUCATION:**

B.S., Hydrology, 1982, University of New Hampshire, cum laude

**COMMUNITY SERVICE:**

1996 – present: Town of Chelmsford Planning Board  
2012 - present: Town of Chelmsford Community Preservation Committee  
2012 – present: Oak Hill Study Committee, Chairman  
2009 – 2012: Town of Chelmsford Affordable Housing Committee  
2009 – 2012: Town of Chelmsford Zoning Bylaw Review Committee, Vice Chairman  
2006 – 2007: North Chelmsford Water District Ad Hoc Study Committee, Chairman  
2004 – 2007: Chelmsford Affordable Housing Implementation Committee, Member  
1997 – 2003: Chelmsford Master Plan & By-law Committee, Vice Chairman  
1997 – 2000: Board of Directors, Friends of Southwell Park, Chelmsford  
1991 – 1997: Chelmsford Conservation Commission, Member, Past Chairman

**PROFESSIONAL EXPERIENCE:**

Places Associates, Inc. Littleton, MA Principal/President, Director of Engineering	2009 - present
PLACES Site Consultants, Inc. Holden, MA Senior Engineer/ Littleton Office Manager	2004 - 2009
David E. Ross Associates, Inc. Ayer, MA Principal, Senior Engineer, Project Manager	1990-2004
Charles A. Perkins Co., Inc. Clinton, MA Hydrologist, Site Designer and Project Manager	1982-1990

*Places Associates, Inc.*  
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**SUSAN E. CARTER, P.E. (continued)**

## **GENERAL BACKGROUND**

As a President and Director of Engineering of Places Associates, Ms. Carter is responsible for the day to day operations and engineering at Places Associates. Ms. Carter is responsible for start-to-finish planning, design and permitting for major residential, commercial, industrial and recreational land development projects.

As the company's principal hydrologist, she is proficient in the use of computer models for drainage calculations, flood plain analysis and flood routing. Throughout her twenty-five years experience, she has acted as a liaison between clients and municipal, state and federal permitting agencies. She worked in more than 30 municipalities, giving her broad exposure to different regulations, policies and approaches to problem solving.

## **EXPERIENCE HIGHLIGHTS:**

Ms. Carter has been the Engineering consultant for the Town of Stow since 1995 providing engineering review services to the Planning Board, Board of Appeals, Board of Selectmen and Land Use Task Force. The scope of services provided has included review of subdivisions, site plans, comprehensive permits, and common driveways for compliance with regulations and with sound engineering practices; review of bond releases and road acceptances; construction inspections of roadways; and review of existing drainage issues under litigation for the Town; evaluation of town owned properties for municipal uses as well as parcels under consideration for purchase by the town for municipal purposes for the Selectmen. Ms. Carter has assisted the Planning Board in revising current subdivision regulations and reviewing proposed revisions to zoning and other regulations. Ms. Carter has been providing similar services for the Town of Box borough since 2008.

Project Engineer for a 160 apartments Comprehensive Permit project in conjunction with a 22 lot Open Space residential subdivision in Littleton, MA. The project included a wetlands crossing, endangered species habitat, on-site waste water treatment plant (by others) and a MassDOT access permit with improvements in the right of way for sight distance improvements (by others).

Project Engineer for a non-profit housing corporation to create 8 affordable housing units in Concord, MA with on-site sewage disposal, municipal water and on a state highway.

Project Engineer for a 380 apartments, 64 town homes, multi-town project in Acton, Westford and Littleton, Massachusetts for a Comprehensive Permit project. The project features steep slopes, endangered species habitat, on-site wastewater treatment plant (by others) and water supply coordination from the Acton Water District and the Littleton Water District. Ms. Carter was instrumental in providing site design, coordination and permitting support services for this complex project.

Project Engineer for the permitting and construction of the new Littleton Police Headquarters in Littleton, MA. Project was located in the Aquifer district and involved coordination with local officials to achieve a cost effective, environmentally sensitive site design.

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**SUSAN E. CARTER, P.E. (continued)**

Project Engineer for the permitting and construction of a new medical office building on the Littleton and Westford town line which allowed the current business to remain local. Project required multiple variances from Zoning, Board of Health and local Wetlands by-laws from both municipalities.

Project Engineer for the construction of an 11,000 s.f. daycare facility in Littleton. The permitting process included site plan review, drainage design, MassHighway curb cut permit, variances for signs and a Sewage Disposal System design.

Project Engineer for the permitting and construction for an 8 unit residential comprehensive permit in Acton, Mass. on a small 1.3 acre site with town water and sewer.

Master planning for an abundant life facility in Littleton, MA where the presence of a state listed species of salamander encumbered much of the site.

Project Engineer for a commercial site in Littleton, MA creating outdoor storage for a fast-growing company that produces modular pre-constructed bathrooms for the hotel industry. Permits negotiated to allow greater coverage than normally allowed by Planning Board in Water Resource District to meet company's need for storage.

Project Engineer for a 44 unit residential comprehensive permit project in Bolton with on-site public water supply and wastewater treatment facilities, recreational fields and extensive wetlands. Project fully permitted but not constructed.

Consultant for the Littleton Conservation Commission reviewing complex drainage calculations in preparation for expert testimony in conjunction with an adjudicatory appeal of a commercial development.

While employed at David E. Ross Associates, Inc., Ms. Carter managed and designed a three lot industrial subdivision in Littleton, Mass. adding an additional 840,000 s.f. of warehouse space to the existing 385,000 s.f. The proposed project included reclamation as fill of over 60,000 tons of abandoned concrete products from the previous owner. Permitting included subdivision approval of over 1 mile of roadway, site plan review for the lots, special permits for the Aquifer Protection District and a Notice of Intent for extensive buffer zone work. Negotiations with Town officials allowed the developer sufficient flexibility to make the extensive reclamation of the site economically feasible.

Ms. Carter was the lead design engineer for a 110 lot residential cluster subdivision in Shirley, Mass. Project was located on a former orchard with pesticide residuals in the soil requiring removal and remediation and was in the permitting process for over 3 years. Detailed design included a soil containment area under the direction of the site LSP, complex erosion and dust control plans, detailed phased remediation plans coordinated with the development of the residential development, complex hydrological analysis and drainage design. Permitting for the site included local Subdivision Approvals, Cluster Special Permit, local Wetlands By-law Order of Conditions, Superseding Orders of Conditions, Army Corps of Engineers permits, Single Environmental Report for the Massachusetts Environmental Policy Act (MEPA), Water and Sewer Connection Permits, and an evaluation of the project by the Massachusetts Aeronautics Commission due to the proximity to the Shirley Airport.

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Juli Riemenschneider, Senior Landscape Architect

Green International Affiliates

April 18, 2013

Tri Valley Commons, Medway

Draft Response to Questions Regarding Sizes of Plant Material

**R E C E I V E D**  
APR 23 2013

**TOWN OF MEDWAY  
PLANNING BOARD**

Attached is a chart showing approximate sizes for the plants at various times. It is difficult to predict exactly how big each plant will be. Genetic variability, site conditions and weather all influence plant growth. The height of the trees at time of planting is the mid-range as described in the American Nursery and Landscape Association's American Standard for Nursery Stock. Growth rates are based on Manual of Woody Landscape Plants by Michael C. Dirr. Some of the growth rates are estimates, as specific feet per year were not available.

The Sugar Tyme Crabapples and Red Oak will spread in width and height. The White Spruce has an average growth rate. Its ultimate size is 60 feet tall by 20 feet wide.

The Gray Twig Dogwood and Northern Bayberry will grow in height and width and will also spread by shoots. They can develop into colonies and spread in width beyond the individual plants.

The Gray Owl Juniper is stated to grow to a three foot height by Dirr. I have planted these and have seen them grow to at least four feet. They are a cultivar of Juniper Virginiana, which is a native plant. There are taller junipers, which could have been selected, however they are derived from a Juniper chinensis, so are not considered native.

The Virginia Creeper is a fast growing vine. It will spread in both height and width.

The specified sizes at planting are based on standard practices, which relate to how likely it will be for the plant to survive transplanting and the feasibility of transporting and planting. Oaks in particular have a higher success rate if planted at a size below 3" caliper. In general, larger caliper trees take longer to recover from transplanting. Trees in the 1-3" caliper range acclimate more quickly and exhibit a faster growth rate.

TRI VALLEY COMMONS  
MEDWAY, MA

PLANT MATERIAL SIZES - TRI VALLEY COMMONS AT RETAINING WALL

COMMON NAME	HEIGHT AT PLANTING		AVERAGE GROWTH RATE	APPROXIMATE HEIGHT IN 5 YEARS		APPROXIMATE HEIGHT IN 10 YEARS		MATURE SIZE
	9 FT	14 FT		13 FEET	24 FEET	17 FEET	34 FEET	
<b>DECIDUOUS TREES</b>								
SUGAR TYME CRABAPPLE	9 FT		75 FT PER YR					18 FT HT X 15 FT W
RED OAK	14 FT		2 FT PER YR					60 FT HT X 60 FT W
<b>EVERGREEN TREES</b>								
WHITE SPRUCE	7.5' HT.		1-1.5 FT PER YR	14 FT	20 FT			60 FT HT X 20 FT W
AMERICAN ARBORVITEA	7.5' HT.		1 FT PER YR	12 FT	16 FT			30 FT HT X 10 FT W
<b>DECIDUOUS SHRUBS</b>								
GRAYTWIG DOGWOOD	3.5' HT		MEDIUM/SHOOTS FAST	7 FT	10 FT			12 FT HT X 12 FT W
MYRICA PENNSYLVANICA	3.5' HT		MEDIUM/SHOOTS FAST	7 FT	9 FT			9 FT HT X 9 FT W
<b>EVERGREEN SHRUBS/GROUND COVERS</b>								
GRAY OWL JUNIPER	2.5 FT		MEDIUM	4 FT	4 FT			4 FT HT X 6 FT W
<b>VINES</b>								
VIRGINIA CREEPER	16"		6-10 FT PER YEAR	10 FT	18 FT			30 FT HT-50 FT HT

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APR 23 2013

TOWN OF MEDWAY  
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GREEN INTERNATIONAL AFFILIATES, INC  
APRIL 18, 2013